Big Water Events

40-hr Pump Operator Course
Refinery Terminal Fire Company
Corpus Christi, Texas
July 2009

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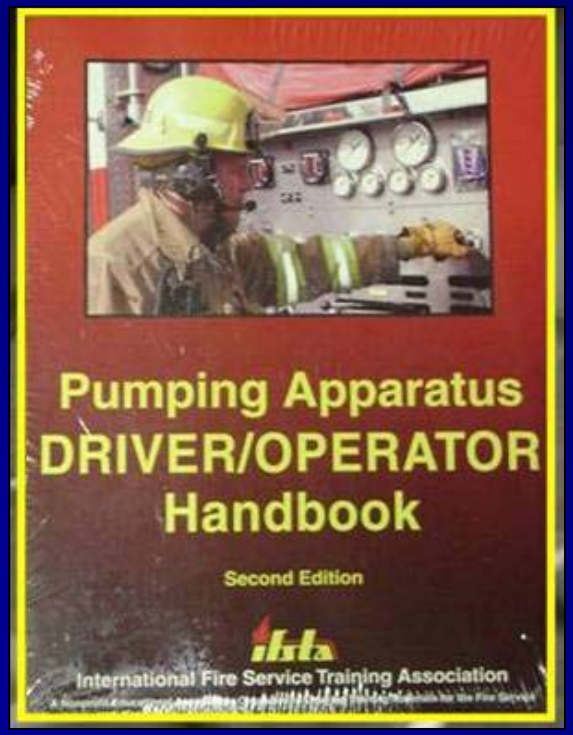
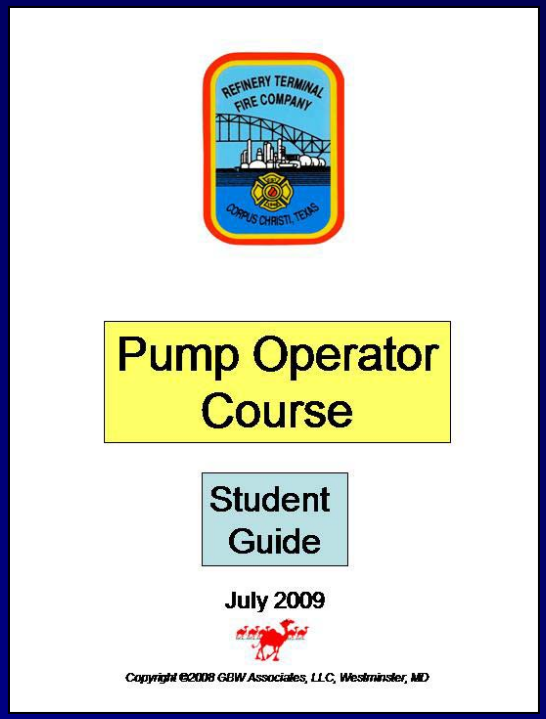
Facts & Figures…

- In mid-July, the folks from GBW Associates, LLC made the annual summer trek to Corpus Christi, Texas to deliver a 40-hour Pump Operator Course to the Refinery Terminal Fire Company (RTFC).
- The course has pretty much been an annual event for more than 10 years and nearly every RTFC driver and officer has completed the program.
- The 40-hour course covered the fundamentals of pump operation including such topics as apparatus design; the properties of water; pump components and operation; attack, relay, and supply pumper operations, and drafting.
- Students in the program had to complete a homework assignment and pass the daily quizzes and final written exam in order to receive a course certificate.

Course Materials





The text for the course was the IFSTA Pumping Apparatus Driver/Operator Handbook, 2nd Edition. Each student also received a Student Note-Taking Guide.

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Attack Pumper Operations

During the 16 hours of practical skill work, students learned the basics of attack, relay, and supply pumper operations. Here, a student learns about the do's and don'ts of engaging the fire pump.

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Attack Pumper Operations

Understanding pump panel instrumentation is critical to becoming a good pump operator. You have to be able to know what your instrumentation is telling you.

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Attack Pumper Operations

Students practice pumping hose lines as the attack pumper. Here, a portable monitor and a handline are being pumped while the rig is being supplied by a city fire hydrant.

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Attack Pumper Operations

The crews used 6-inch hose to supply a jumbo-wye and then a 5-inch line to a TFT 1,250 gpm CrossFire portable monitor.

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Attack Pumper Operations

For the first day of attack pumper evolutions, the pumper was fed by a 6-inch supply line from a “city” fire hydrant – which simulated the typical lower operating pressure when compared to a refinery fire water system.

Attack Pumper Operations

Foam 5, a 3,000 gpm foam pumper was used as the attack pumper - giving the students plenty of pumping capability for the day's events.

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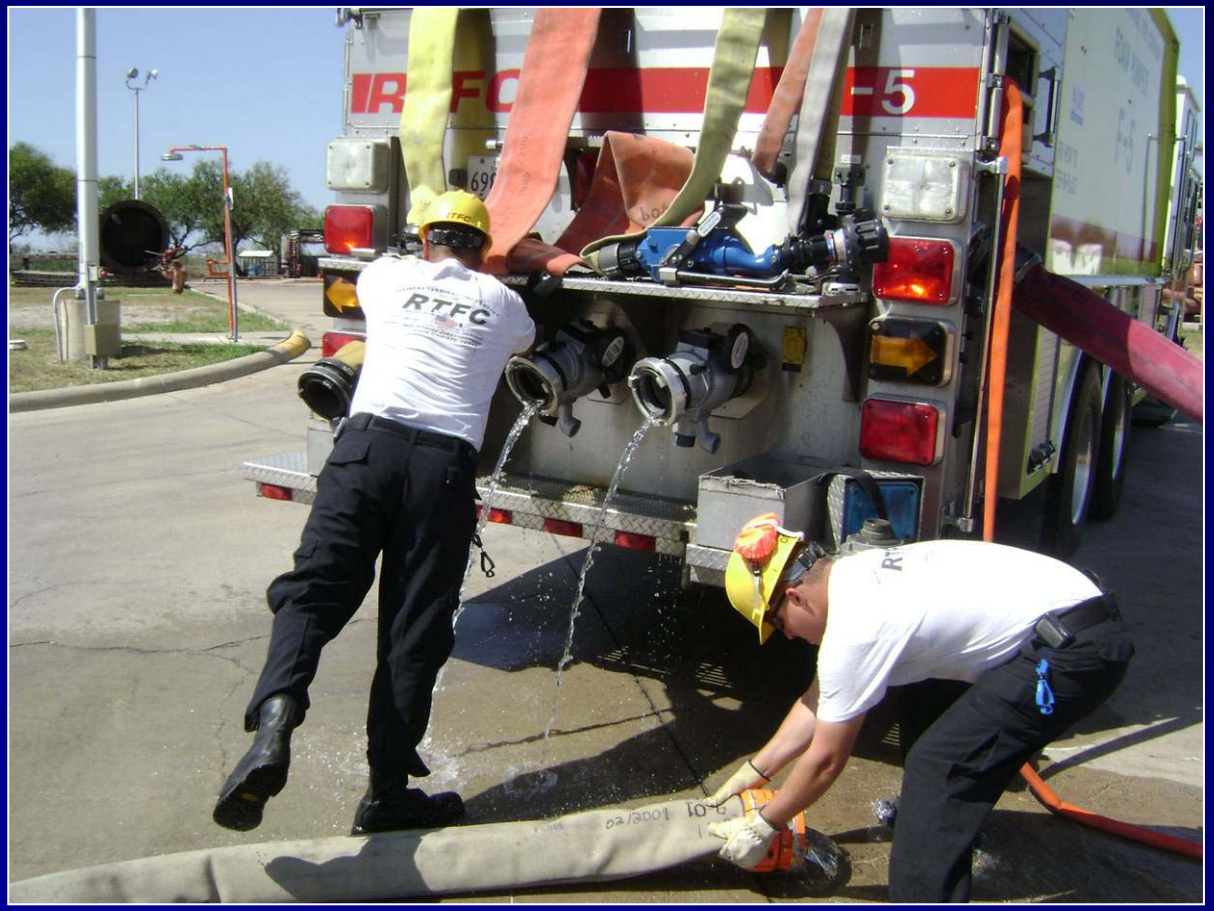
Attack Pumper Operations



Foam 5 is set-up to take three, 6-inch supply lines into the rear-mounted pump. When all three lines are in use, the pump can discharge over 4,000 gpm.

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Attack Pumper Operations

The class participants had plenty of opportunity to “get to know” this rear-mounted pump.

Attack Pumper Operations

At RTFC, 5-inch hose is used as attack line. Every engine can lead off with a portable monitor fed by a 5-inch line for a “”big water” fire attack.

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Drafting Operations

The second day of practical skills work started off with drafting. Above, students remove 8-inch suction hose from a support unit.

Drafting Operations

The 8-inch suction hose is needed in order to achieve the rated flows for the 3,000 gpm pumps at draft. The hose uses 6-inch NST couplings.

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Drafting Operations

Although not often used in an industrial setting, drafting is an important skill for any pump operator. At anytime, a catastrophic event could occur that damages the fire water system and drafting operations may be needed.

Drafting Operations

Students learned how to draft through one suction and then use the water movement through the pump to prime the other length of suction hose.

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Relay Operations

Foam Tower 3, a 3,000 gpm rated pump, was used for the relay pumping operation on the second day of skills. Students are shown above stretching a 7-1/4-inch supply line which was fed by Foam 5 using a 150 psi fire water system.

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Relay Operations

Crews learned the nuances of flowing 2,000+ gpm while being supplied by another pumper. They learned that coordination is important.

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Summary

- The course was once again successful.
- The hydraulic calculations didn't cause too much brain damage and the practical skills provided a good demonstration of the basics.
- From here, the next step for the students is to work with a driver training mentor to become drivers on their respective pumpers.

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This program was developed by
GBW Associates, LLC

For more information contact us at

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